PATENT ABSTRACTS OF JAPAN

(11)Publication number :   **05-095357**

(43)Date of publication of application : **16.04.1993**

(51)Int.Cl.	H04L 12/24 H04L 12/26 H04M 3/22

(21)Application number : **03-280318**   (71)Applicant : **SHIKOKU NIPPON DENKI SOFTWARE KK**

(22)Date of filing :   **02.10.1991**   (72)Inventor :   **HARAIGAWA TOSHIFUMI**

(54) DELETE SYSTEM OF INFORMATION AT OUTSIDE OF OBJECT BY WAITING OF FAULT INFORMATION

(57)Abstract:

PURPOSE: To relieve the load of the entire system by providing a function selecting a message for fault discrimination to the network management (monitor) system when lots of same faults take place from a same device or when lots of affected faults noticed from a peripheral equipment take place while one device is faulty.

CONSTITUTION: Fault information (message) is informed to a network management equipment 8 from a network device 1 of a monitor object. In this case, a data collection section 2 stores fault data for a prescribed time to a data storage table 4. After lapse of a prescribed time, a data selection delete section 3 leaves only one same fault message within a range of stored data and references configuration information table 7 and deletes an effect fault by leaving only a main cause fault. A processing section after a fault discrimination section 5 executes the processing only as to fault information to be left after the end of selection.
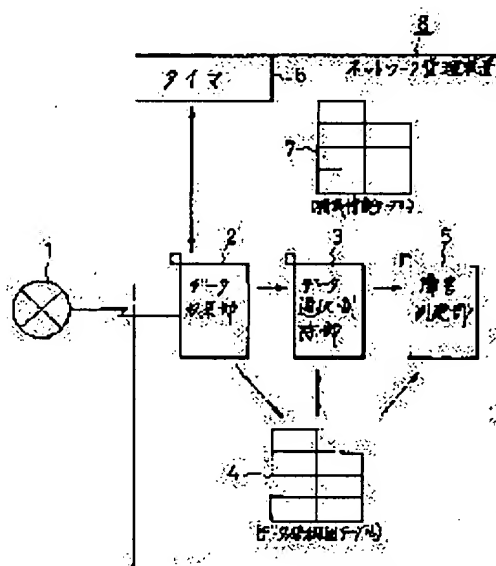
LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of

rejection]

[Kind of final disposal of application other than
the examiner's decision of rejection or
application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's
decision of rejection]

[Date of requesting appeal against examiner's
decision of rejection]

[Date of extinction of right]

* NOTICES *

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

CLAIMS

[Claim(s)]
[Claim 1] The fault information of network equipment is inputted in a network managerial system. At the time By performing only collection and are recording of the fault information until it operates a timer and carries out fixed time amount progress, when it inputs first, making the same failure of the same equipment into one affair in the accumulated fault information after fixed time amount progress, and eliminating an effect failure The deletion method of the information outside an object by queuing of the fault information characterized by decreasing the data number of cases of the fault information used as a processing object.

[Translation done.]

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Industrial Application] Especially this invention relates to the deletion method of the information outside an object by queuing of the fault information carried out as pretreatment in the case of carrying out the failure judging of the equipment and the circuit which constitutes a network (communication network) about a network management (it also being called monitor) system.
[0002]
[Description of the Prior Art] Conventionally, fault information is processed by real time in a network managerial system, and, as for the measures against reduction of the data number of cases, it is common not to carry out.
[0003]
[Problem(s) to be Solved by the Invention] Thus, since mode of processing of the conventional fault information had turned into a method processed about all the inputted data, the trouble of increase of the load to the whole system was in real time.
[0004] This invention aims at aiming at mitigation of a system-wide load by having been made in view of the above point and giving the function which chooses the data which should carry out a failure judging in a network managerial system when the same failures occurred frequently with the same equipment , or when the effect failures notified from surrounding equipment occur frequently when one equipment becomes a failure .
[0005]
[Means for Solving the Problem] In order to attain the above-mentioned purpose, the deletion method of the information outside an object by queuing of the fault information of this invention When the fault information of network equipment is inputted, only collection and are recording of the fault information are performed until it operates a timer and carries out fixed time amount progress, when it inputs first. It is made to decrease the data number of cases of the fault information used as a processing object by making the same failure of the same equipment into one affair in the accumulated fault information after fixed time amount progress, and eliminating an effect failure.
[0006]
[Function] Therefore, when fault information was inputted first, after operating the timer for queuing according to this invention, selection and deletion of the fault information within the limits accumulated after the queuing completion can be performed.
[0007]
[Example] Next, this invention is explained with reference to a drawing. Drawing 1 is a schematic diagram explaining one example of the deletion method of the information outside an object by queuing of the fault information of this invention. In this drawing, 1 is network equipment for [which constitutes a network] a monitor. As for the data collection section and 3, the table for data storage, the timer for [5] queuing in the failure judging section and 6, and 7 are configuration information tables, and data selection and a cutout, and 4 constitute [2] network administration equipment 8 by these.
[0008] Here, if a failure occurs in the network equipment 1 which constitutes the network, this network equipment 1 will edit data with a generating part, generating time of day, and the contents of a failure, and will transmit them to network administration equipment 6 by making that data into a failure

message. After transmitting the fault information of the same contents continuously or notifying a temporary failure message several times at this time, a persistent fault message may be notified.

[0009] Furthermore, the failure of network equipment 1 is the line connection section, or an effect failure occurs from other network equipment which has a connection relation when it is serious failure, and a lot of data are transmitted to network administration equipment 8. Therefore, the data notified by such pattern are inputted into the data collection section 2 of network administration equipment 8.

[0010] This data collection section 2 enables it to receive the notice of queuing time amount termination after fixed time amount, after operating the timer 6 for queuing, when data are inputted in the condition of not operating the timer. Moreover, the data inputted during this timer 6 actuation perform processing as which the table 4 for data storage is only filled in.

[0011] And if the notice of queuing time amount termination is received after fixed time amount, the table name for data storage and its exclusive right will be handed over to data selection and a cutout 3. The exclusive right of this table shall give that display area to the managed record section 41 (refer to drawing 2) of the table 4 for data storage, shall display monopoly during renewal of a table, and shall stand the display for release at the time of use termination. Even when data selection and a cutout 3, and the failure judging section 5 are using it, in order to enable actuation of the data collection section 2, it is necessary to make two or more generations of tables 4 for data storage exist.

[0012] Moreover, with reference to the notified table 4 for data storage, data selection and a cutout 3 search the data of the contents of the same failure in the same generating part, and performs the display besides a processing object by the data accumulation section 42 to the data after the 2nd affair. Next, when the persistent fault exists about the failure of the same generating part, the temporary failure corresponding to it is searched, and if it exists, the display besides a processing object will be performed to the data. Furthermore the contents of a failure are searched and an effect failure is extracted.

[0013] This effect failure may be made into the outside of a processing object only when what performs the display besides a processing object unconditionally, and the cause of main which caused effect exist. In the case of the latter, when the device name which has a connection relation is extracted with reference to the configuration information table 7, the data storage table 4 is searched based on it and the contents of a failure become the cause of main, the display besides a processing object is stood to an effect failure. When all the above-mentioned processings are completed, data selection and a cutout 3 release the exclusive right of the table of the managed record section 41 of the data storage table 4, and hands over the table name for data storage to the failure judging section 5.

[0014] This failure judging section 5 monopolizes the data storage table 4, and inputs failure data with a sequential lead. And when it inputs, the display besides a processing object is checked, only processing-object data are treated, and a failure judging is performed. Furthermore, when all finishing reading the data storage table 4, the monopoly display of the managed record section 41 will be released to data collection.

[0015]
[Effect of the Invention] This invention is the range of the data, after performing queuing of fixed time amount and storing data in consideration of [having explained above] the generating pattern of a network equipment failure, by deleting the data besides a processing object, decreases the processing number of cases after a failure judging, and has the effectiveness which can mitigate the load to a network system.

[Translation done.]

* NOTICES *

TECHNICAL FIELD

[Industrial Application] Especially this invention relates to the deletion method of the information outside an object by queuing of the fault information carried out as pretreatment in the case of carrying out the failure judging of the equipment and the circuit which constitutes a network (communication network) about a network management (it also being called monitor) system.

[Translation done.]

* NOTICES *

PRIOR ART

[Description of the Prior Art] Conventionally, fault information is processed by real time in a network managerial system, and, as for the measures against reduction of the data number of cases, it is common not to carry out.

[Translation done.]

* NOTICES *

EFFECT OF THE INVENTION

[Effect of the Invention] This invention is the range of the data, after performing queuing of fixed time amount and storing data in consideration of [having explained above] the generating pattern of a network equipment failure, by deleting the data besides a processing object, decreases the processing number of cases after a failure judging, and has the effectiveness which can mitigate the load to a network system.

[Translation done.]

* NOTICES *

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

TECHNICAL PROBLEM

[Problem(s) to be Solved by the Invention] Thus, since mode of processing of the conventional fault information had turned into a method processed about all the inputted data, the trouble of increase of the load to the whole system was in real time.
[0004] This invention aims at aiming at mitigation of a system-wide load by having been made in view of the above point and giving the function which chooses the data which should carry out a failure judging in a network managerial system when the same failures occurred frequently with the same equipment , or when the effect failures notified from surrounding equipment occur frequently when one equipment becomes a failure .

[Translation done.]

* NOTICES *

MEANS

[Means for Solving the Problem] In order to attain the above-mentioned purpose, the deletion method of the information outside an object by queuing of the fault information of this invention When the fault information of network equipment is inputted, only collection and are recording of the fault information are performed until it operates a timer and carries out fixed time amount progress, when it inputs first. It is made to decrease the data number of cases of the fault information used as a processing object by making the same failure of the same equipment into one affair in the accumulated fault information after fixed time amount progress, and eliminating an effect failure.

[Translation done.]

* NOTICES *

OPERATION

[Function] Therefore, when fault information was inputted first, after operating the timer for queuing according to this invention, selection and deletion of the fault information within the limits accumulated after the queuing completion can be performed.

[Translation done.]

* NOTICES *

JPO and NCIPI are not responsible for any
damages caused by the use of this translation.

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

EXAMPLE

[Example] Next, this invention is explained with reference to a drawing. Drawing 1 is a schematic diagram explaining one example of the deletion method of the information outside an object by queuing of the fault information of this invention. In this drawing, 1 is network equipment for [which constitutes a network] a monitor. As for the data collection section and 3, the table for data storage, the timer for [5] queuing in the failure judging section and 6, and 7 are configuration information tables, and data selection and a cutout, and 4 constitute [2] network administration equipment 8 by these.

[0008] Here, if a failure occurs in the network equipment 1 which constitutes the network, this network equipment 1 will edit data with a generating part, generating time of day, and the contents of a failure, and will transmit them to network administration equipment 6 by making that data into a failure message. After transmitting the fault information of the same contents continuously or notifying a temporary failure message several times at this time, a persistent fault message may be notified.

[0009] Furthermore, the failure of network equipment 1 is the line connection section, or an effect failure occurs from other network equipment which has a connection relation when it is serious failure, and a lot of data are transmitted to network administration equipment 8. Therefore, the data notified by such pattern are inputted into the data collection section 2 of network administration equipment 8.

[0010] This data collection section 2 enables it to receive the notice of queuing time amount termination after fixed time amount, after operating the timer 6 for queuing, when data are inputted in the condition of not operating the timer. Moreover, the data inputted during this timer 6 actuation perform processing as which the table 4 for data storage is only filled in.

[0011] And if the notice of queuing time amount termination is received after fixed time amount, the table name for data storage and its exclusive right will be handed over to data selection and a cutout 3. The exclusive right of this table shall give that display area to the managed record section 41 (refer to drawing 2) of the table 4 for data storage, shall display monopoly during renewal of a table, and shall stand the display for release at the time of use termination. Even when data selection and a cutout 3, and the failure judging section 5 are using it, in order to enable actuation of the data collection section 2, it is necessary to make two or more generations of tables 4 for data storage exist.

[0012] Moreover, with reference to the notified table 4 for data storage, data selection and a cutout 3 search the data of the contents of the same failure in the same generating part, and performs the display besides a processing object by the data accumulation section 42 to the data after the 2nd affair. Next, when the persistent fault exists about the failure of the same generating part, the temporary failure corresponding to it is searched, and if it exists, the display besides a processing object will be performed to the data. Furthermore the contents of a failure are searched and an effect failure is extracted.

[0013] This effect failure may be made into the outside of a processing object only when what performs the display besides a processing object unconditionally, and the cause of main which caused effect exist. In the case of the latter, when the device name which has a connection relation is extracted with reference to the configuration information table 7, the data storage table 4 is searched based on it and the contents of a failure become the cause of main, the display besides a processing object is stood to an effect failure. When all the above-mentioned processings are completed, data selection and a cutout 3 release the exclusive right of the table of the managed record section 41 of the data storage table 4, and hands over the table name for data storage to the failure judging section 5.

[0014] This failure judging section 5 monopolizes the data storage table 4, and inputs failure data with a

sequential lead. And when it inputs, the display besides a processing object is checked, only processing-object data are treated, and a failure judging is performed. Furthermore, when all finishing reading the data storage table 4, the monopoly display of the managed record section 41 will be released to data collection.

[Translation done.]

* NOTICES *

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] It is a schematic diagram for explaining one example of the deletion method of the information outside an object by queuing of the fault information of this invention.
[Drawing 2] It is the record image Fig. of the table for data storage of drawing 1 .
[Description of Notations]
1 Network Equipment
2 Data Collection Section
3 Data Selection and Cutout
4 Table for Data Storage
5 Failure Judging Section
6 Timer
7 Configuration Information Table
8 Network Administration Equipment

[Translation done.]

* NOTICES *

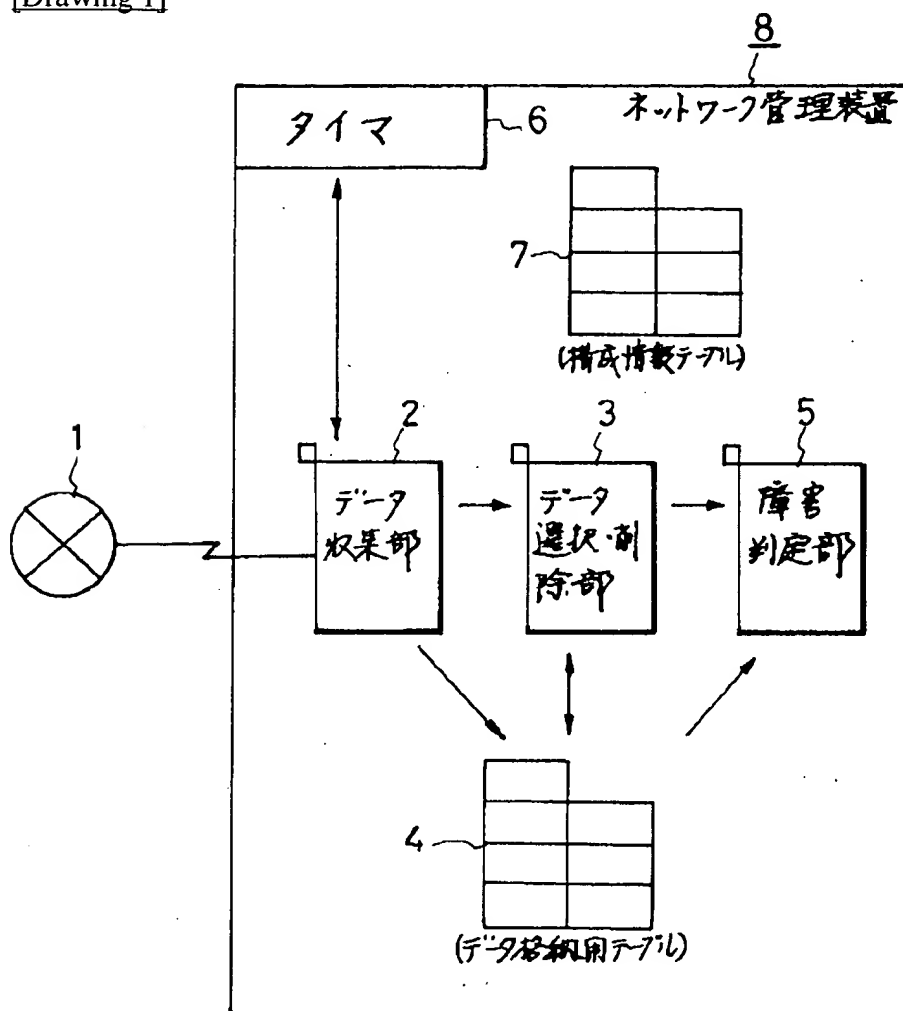1.This document has been translated by computer. So the translation may not reflect the original precisely.
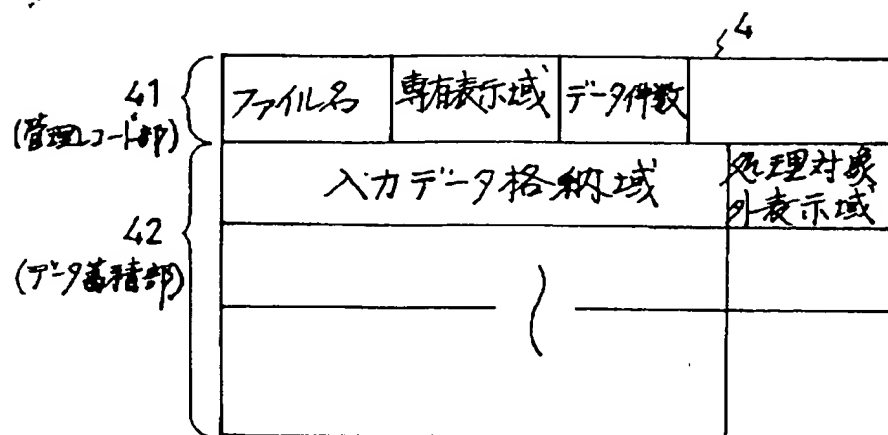2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

DRAWINGS

[Drawing 1]

[Drawing 2]

ファイル名	専有表示域	データ件数	
入力データ格納域			処理対象外表示域

41 (管理レコード部)

42 (データ蓄積部)

4

[Translation done.]